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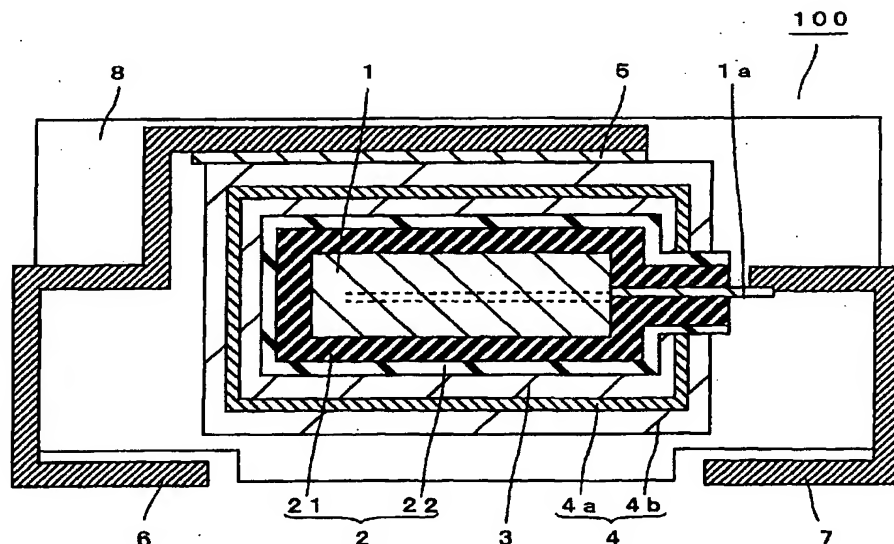
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(81) 指定国(表示のない限り、全ての種類の国内保護が可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[続葉有]

(54) Title: SOLID ELECTROLYTIC CAPACITOR AND METHOD FOR MANUFACTURING SAME

(54) 発明の名称: 固体電解コンデンサ及びその製造方法



(57) Abstract: [PROBLEMS] Disclosed is a solid electrolytic capacitor wherein leakage current is reduced. Also disclosed is a method for manufacturing such a solid electrolytic capacitor. [MEANS FOR SOLVING PROBLEMS] A solid electrolytic capacitor (100) comprises a positive electrode (1) composed of niobium or a niobium alloy, a dielectric layer (2) composed of a niobium oxide mainly containing niobium and oxygen and having a high insulating property, an electrolyte layer (3) and a negative electrode (4); and the dielectric layer (2), electrolyte layer (3) and negative electrode (4) are sequentially formed on the positive electrode (1). The dielectric layer (2) is composed of a first dielectric layer (21) which is formed on the positive electrode (1) and contains fluorine, and a second dielectric layer (22) which is formed on the first dielectric layer (21) and contains phosphorus or sulfur. In the first dielectric layer (21), the concentration of fluorine decreases from the positive electrode (1) side to the second dielectric layer (22) side.

[続葉有]



(84) 指定国 (表示のない限り、全ての種類の広域保護が可能): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

添付公開書類:

— 国際調査報告書

(57) 要約: 【課題】 漏れ電流が低減された固体電解コンデンサ及びその製造方法を提供する。【解決手段】 この固体電解コンデンサ100においては、ニオブ又はニオブ合金からなる陽極1の上に、ニオブ及び酸素を主成分とする絶縁性の高い酸化ニオブからなる誘電体層2と電解質層3と陰極4とが順に形成され、上記の誘電体層2は、陽極1上に形成されるフッ素を含む第1誘電体層21と、この第1誘電体層21上に形成されるリン又はイオウを含む第2誘電体層22とで構成され、さらに、第1誘電体層21では、陽極1側から第2誘電体層22側に向かってフッ素濃度が減少している。

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/019056

A. CLASSIFICATION OF SUBJECT MATTER  
Int.Cl<sup>7</sup> H01G9/04, H01G9/07

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
Int.Cl<sup>7</sup> H01G9/04, H01G9/07

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2005  
Kokai Jitsuyo Shinan Koho 1971-2005 Jitsuyo Shinan Toroku Koho 1996-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 2-277212 A (Matsushita Electric Industrial Co., Ltd.), 13 November, 1990 (13.11.90), Claim 2 (Family: none)	1, 4, 5, 7 2, 3, 6, 8
Y	JP 2003-158044 A (Showa Denko Kabushiki Kaisha), 30 May, 2003 (30.05.03), Claim 2 & US 2004-0149961 A & WO 02/103727 A1	1, 4, 5, 7

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

### \* Special categories of cited documents:

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"&" document member of the same patent family

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